

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently amended) A method for facilitating credit card transactions over a telecommunications network without disclosing a credit card account number,

comprising the steps of:

receiving from a merchant via the telecommunications network an encoded temporary ~~desiring to receive authorization for a transaction with a user having an account with a credit card issuer,~~ a transaction authorization number for an e-commerce transaction, said temporary transaction authorization number having been generated by a user having an account with a credit card issuer, wherein said temporary transaction authorization number comprises multiple fields of encrypted ~~and~~ information regarding the transaction;

retrieving secret information required to decode said multiple fields of information ~~shared with a transaction authorization number generator utilized by the user;~~
and

matching decoded fields of information with corresponding transaction information provided by the merchant, and thereby verifying the temporary authorization transaction number by using the shared secret information and information regarding the transaction- without disclosing the credit card account number via the telecommunications network to the merchant.

2. (Currently amended) The invention of claim 1 wherein ~~the secret information further comprises a credit card number-~~ the corresponding transaction information provided by the merchant includes a name and/or address associated with the user.

3. (Currently amended) The invention of claim 1 wherein the temporary authorization number ~~is a~~ includes an additional encrypted message authentication code generated from the multiple fields of information regarding the transaction using the secret information as a cryptographic key.

4. (Currently amended) The invention of claim 1 wherein the temporary authorization number ~~is~~ includes a one-time encrypted password generated from the ~~shared secret~~ information provided by the user and/or the credit card issuer.

5. (Currently amended) A method for facilitating credit card transactions over a telecommunications network based on authentication information provided by a user having an account with a credit card issuer , comprising the steps of:

~~receiving authentication information from a user having an account with a credit card issuer; and~~

generating offline a temporary authorization number for the user ~~using~~ based on secret encoding and encryption information shared with ~~a~~ the credit card issuer ;

whereby sending via the telecommunications network to an e-commerce merchant from the user the temporary authorization number ~~may be~~ containing the authentication information in multiple encoded fields of encrypted information utilized in a credit card transaction without disclosing a credit card account number via the telecommunication network to the merchant; and

obtaining via the telecommunications network a verification from ~~verified by~~ the credit card issuer based on a comparison of the fields of encrypted information in the temporary authorization number using the shared secret information and with corresponding information regarding the transaction provided by the merchant .

6. (Currently amended) The invention of claim 5 wherein the ~~secret information further comprises a credit card number associated with the user which is also used~~ multiple encoded fields of encrypted information include as the authentication information at least one of the following: transaction amount, counter, date information,

computer location of encryption key, concatenated string, seed value, instance number, credit card number, credit card issuer, merchant .

7. (Currently amended) The invention of claim 5 wherein the secret information is utilized as a cryptographic key to decrypt the multiple fields of information regarding the transaction encoded in the temporary authorization number.

8. (Currently amended) The invention of claim 5 wherein the temporary authorization number ~~is a~~ includes an additional encrypted message authentication code generated from the multiple fields of information regarding the transaction using the secret information as a cryptographic key.

9. (Currently amended) The invention of claim 5 wherein the temporary authorization number is includes a one-time encrypted password generated from ~~the shared secret~~ information provided by the user and/or the credit card issuer.

10. (Original) The invention of claim 5 wherein the temporary authorization number has a format similar to a credit card number.

11. (Currently amended) A processor readable medium containing executable program instructions for performing a method on a device comprising the steps recited in claim 1 of:

~~—receiving authentication information from a user having an account with a credit card issuer; and~~

~~—generating a temporary authorization number for the user using secret information stored on the device and shared with a credit card issuer whereby the temporary authorization number may be utilized in a transaction and verified by the credit card issuer using the shared secret information regarding the transaction.~~

12-16. (Cancelled)

17. (Original) The invention of claim 1 wherein the secret information is utilized as a cryptographic key to decrypt information regarding the transaction encoded in the temporary authorization number.

18. (New) The invention of claim 1 wherein the temporary transaction authorization number has a format similar to a credit card number.

19. (New) The invention of claim 1 wherein the multiple encoded fields of encrypted information in the transaction authorization number include at least one of the following: transaction amount, counter, date information, computer location of encryption key, concatenated string, instance number, seed value, credit card number, credit card issuer, merchant.

20. (New) The invention of claim 11 wherein the multiple encoded fields of encrypted information in the transaction authorization number include at least one of the following: transaction amount, counter, date information, computer location of encryption key, concatenated string, instance number, seed value, credit card number, credit card issuer, merchant.

21. (New) The invention of claim 5 wherein the corresponding transaction information provided by the merchant includes a name and/or address associated with the user.